

What is claimed is:

1. A structure for reducing noise and vibration of a scroll compressor,
comprising:

an outer casing ¹¹ connected [?] combined with a suction pipe ^{SP} and discharge ^{DP} pipe respectively;

an inner casing ¹² combined [?] with the inner circumferential surface of the outer casing;

a driving motor ¹⁵ combined [?] with the inner circumferential surface of the inner casing, for generating a rotation force;

a driving shaft ¹⁶ combined ^{15B} with a rotor ^{part of driving motor} for transmitting the rotation force;

a fixed scroll for forming a plurality of compression pockets which continuously move, combined with an orbiting scroll orbiting eccentrically combined with the driving shaft and the orbiting scroll and forming a discharge port;

a frame ¹³ fixed combined on the inner circumferential surface of the inner casing, for supporting the driving shaft; and

an elastic supporting means for elastically supporting the outer casing and inner casing. ^{relative to what structure?}

2. The structure of claim 1, wherein the elastic supporting means comprises:

an outer supporting protrusion portion ^{11a}, three or more of which are formed along the inner circumferential surface at a same height as the inner circumferential surface of the outer casing;

a spring fixing member inserted-combined on one side surface of the outer supporting protrusion portion;

an inner supporting protrusion portion, three or more of which are formed on the perpendicular line opposed to the outer supporting protrusion portion on the outer circumferential surface of the inner casing;

a spring fixing member inserted-combined on one side of the inner supporting protrusion portion; and

an elastic member positioned between the opposed surfaces of the spring fixing members, for elastically supporting the inner casing on the outer casing.

3. The structure of claim 2, wherein the outer supporting protrusion portion and the inner supporting protrusion portion are protruded-formed on a same perpendicular line, having a certain height difference.

ref. frame

4. The structure of claim 1, wherein the elastic supporting means comprises:

an elastic member mounting hole, three or more of which are formed being penetrated at a certain portion of the inner casing;

an outer supporting protrusion portion, three or more of which are formed along the inner circumferential surface at a same height as the inner circumferential surface of the outer casing, protruding the elastic member mounting hole;

a spring fixing member inserted-combined on one side surface of the outer supporting protrusion portion;

a spring fixing member inserted-combined on one side of the main frame;

and

an elastic member positioned between the opposed surfaces of the spring fixing members, for elastically supporting the inner casing on the outer casing.

5 5. The structure of claim 1, wherein a discharge plenum²⁰ connected with a discharge port, where ^{DP}one or more discharge space² is formed, is positioned on the rear surface of the fixed scroll.

10 6. The structure of claim 5, wherein a ⁵loop pipe²¹ for connecting a final discharge space and a discharge pipe of the outer casing is connected-combined^{as loop} at one side of the discharge plenum.

15 7. The structure of claim 1, wherein the lower end of the driving shaft is formed longer than the lower end of the inner casing.

8. The structure of claim 1, wherein the elastic member is composed of a coil spring.

20 9. The structure of claim 6, wherein the loop pipe is composed of a spring pipe which has elasticity.